

ABSTRACT

Substantially linear olefin polymers having a melt flow ratio, I_{10}/I_2 , ≥ 5.63 , a molecular weight distribution, M_w/M_n , defined by the equation: $M_w/M_n \leq (I_{10}/I_2) - 4.63$, and a critical shear stress at onset of gross melt fracture of greater than about 4×10^6 dyne/cm² and their method of manufacture are disclosed. The substantially linear olefin polymers preferably have at least about 0.01 long chain branches/1000 carbons and a molecular weight distribution from about 1.5 to about 2.5. The new polymers have improved processability over conventional olefin polymers and are useful in producing fabricated articles such as fibers, films, and molded parts.

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C-40.121-18 AA AC AV -56-
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